

CLAIMS

What is claimed is:

- sub A67*
1. A device for grabbing bottles, the device comprising:  
a frame having a first and a second parallel elongated support structure;  
a first set of gripping heads mounted on said first elongated support structure;  
a plurality of shoulder pads each adjacent to said first set of gripping heads, said plurality of shoulder pads mounted on said first elongated support structure;  
a plurality of extendable arms mounted on said second elongated support structure; and  
a second set of gripping heads mounted on an end of said plurality of extendable arms.
  2. The device according to claim 1, further comprising an interface for connecting said device to an automated system.
  3. The device according to claim 2, wherein said set of gripping heads each comprises:  
a motorized base; and  
a plurality of claws mounted on said motorized base, said motorized base enabling said claws to securely grip.
  4. The device according to claim 3, further comprising a pressure sensor mounted on each of said second set of gripping heads for sensing an overload of said plurality of extendable arms.
  5. A device comprising:  
a frame;  
a first set of gripping heads mounted on said frame;  
a plurality of shoulder pads each surrounding each of said first set of gripping heads, said plurality of shoulder pads mounted on said frame; and  
a second set of gripping heads adjacent to said first set of gripping heads.
  6. The device according to claim 5 wherein said first set of gripping heads each further comprises:  
a motorized base; and

a plurality of claws mounted on said motorized base, said motorized base enabling said claws to securely grip.

*A6*  
7. The device according to claim 5 wherein said second set of gripping heads each further comprises:

a motorized base; and

a plurality of claws mounted on said motorized base, said motorized base enabling said claws to securely grip.

*Sub A6*  
8. The device according to claim 5 further comprising a plurality of expandable arms each supported by said frame, said plurality of expandable arms each having a first end and a second end, said second set of gripping heads each mounted on said first end.

*Sub A6*  
9. The device according to claim 8 further comprising an interface for connecting the gripping device to an automated system.

10. The device according to claim 8 further comprising a pressure sensor connected with said plurality of gripping heads for sensing an overload of said plurality of gripping heads.

11. A device for grabbing a bottle having a neck comprising:

a motorized base; and

a plurality of claws mounted on said motorized base, said motorized base enabling said claws to securely grip.

12. The device according to claim 11, further comprising a sensor for sensing the amount of stress created on the device by the weight of the bottle.

*Sub A6*  
13. The device according to claim 11, wherein said plurality of claws mate with the neck of bottle.

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14. The device according to claim 13, wherein said plurality of claws each further comprise a pad mounted on each of said plurality of claws for supporting the neck of the bottle.

15. A device for grabbing a bottle having a neck and a shoulder, the device comprising:  
a motorized base;  
a plurality of claws mounted on said motorized base, said motorized base enabling said claws to securely grip the neck of the bottle; and  
a plurality of shoulder pads surrounding said plurality of claws for supporting the shoulder of the bottle;

16. The device according to claim 15, wherein said plurality of claws further comprise a pad mounted on said claws for supporting the neck of the bottle.

17. The device according to claim 15, wherein said plurality of claws mate with the neck of the bottle.

18. A method of loading and unloading bottles using a device, the method comprising:  
loading a plurality of bottles with a device at a first location; and  
unloading said plurality of bottles with said device at a second location, wherein said device further comprises:  
a frame having a first and a second parallel elongated support structure;  
a first set of gripping heads mounted on said first elongated support structure;  
a plurality of shoulder pads each adjacent to said first set of gripping heads, said plurality of shoulder pads mounted on said first elongated support structure;  
a plurality of extendable arms mounted on said second elongated support structure; and  
a second set of gripping heads mounted on an end of said plurality of extendable arms.